registration was carried out on a predefined day of the week. Proportions were compared using Fisher's Exact test.
Results: For patients evaluated on a fixed treatment fraction (October 2011), 58 CTC registrations out of 134 (0.43, 95% CI: 0.39–0.48) planned registrations were recorded. For patients evaluated on a predefined weekday (October 2012), 83 CTC registrations were performed out of 108 possible (0.77, 0.72–0.81). The absolute difference in the proportions of registrations performed was 0.34 (95% CI: 0.21–0.45, p<0.0001). Of the 20 patients treated in October 2011, 19 (0.95, 95% CI: 0.84–0.99) received medical treatment of their acute side effects administered by a RTN, by the use of prior delegated medical interventions (i.e. no physician involvement). In October 2012, only 12 of the 20 patients (0.60, 0.46–0.72) received medical treatment. This corresponds to an absolute decrease in medical treatment of acute side-effects by 0.35 (0.10–0.58, p=0.02).
Conclusions: We found an increased number of planned registrations performed as well as a decrease in the number of patients in need of medical treatment of acute side effects. This is believed to reflect that improved CTC registration results in more effective early nursing interventions from the RTN. The pre-defined levels in the CTC-system and the prior delegated medical intervention options allow for quick and independent response to acute RT toxicity by the RTN. As an added benefit, systematic CTC registrations will provide additional and improved scientific data on patients' tolerance to RT.
As this is a retrospective study comparing two patient cohorts, there may be an effect of simply introducing a new procedure on the compliance with planned toxicity scoring. However, the decrease in medical interventions following an increased focus on consistent toxicity scoring is nevertheless of interest.

PD-0269
Mepilex Lite dressings decrease the severity of acute radiation-induced skin reactions post-mastectomy
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Purpose/Objective: Severe acute radiation-induced skin reactions occur in a significant proportion of women who receive radiation therapy for breast cancer. We previously showed that Mepilex Lite dressings decreased the severity of erythema. Here we report their effect on the full range of skin reactions in 74 breast cancer patients post-mastectomy.
Materials and Methods: A total of 80 women were recruited from four hospitals in New Zealand with 74 women contributing a full data set for analysis. The first skin area on the chest wall to develop erythema was randomly divided into two similar halves; one half was treated with Mepilex Lite dressings, the other half with aqueous cream. Skin reactions were assessed using the Radiation-Induced Skin Reaction Assessment Scale (RISRAS).
Results: Compared with aqueous cream, Mepilex Lite dressings did not significantly reduce the incidence of moist desquamation but did reduce the overall severity of skin reactions by 41%, the average moist desquamation score by 49% and the sum of the moist desquamation time for all patches by 28% (see table below). Most patients preferred the dressings, found them easy to use and very comfortable to wear.

Table1: Key trial results

Measures	Aqueous Cream	Mepilex	p values
RISRAS (combined)	3.02 ± 0.29	1.77 ± 0.12	<0.001 (t-test)
RISRAS (moist desquamation)	0.37	0.18	0.043 (t-test)
Incidence of moist desquamation	19%	15%	0.55 (binomial)
Time to moist desquamation	49.9 ± 3.3 days	40.3 ± 2.7 days	0.93 (PROC MIXED)
Time to healing	12.5 ± 1.5 days	11.4 ± 1.7 days	0.66 (PROC MIXED)
Total moist desquamation time	25 weeks	18 weeks	NA

Conclusions: Mepilex Lite dressings reduce all aspects of radiation-induced skin reactions.

PD-0270
A survey of radiotherapy skin care practice across Europe and the United States of America
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Purpose/Objective: Radiation induced toxicity is a common adverse side effect of radiation therapy. Radiotherapy may cause varying degrees of physical skin reactions, and contribute to a patient's overall quality of life. A recent Society and College of Radiographers (SCoR) survey of skincare practice in the UK highlighted a lack of convincing evidence to support skincare advice for radiotherapy patients in relation to prevention and management of skin reactions.
The purpose of this research study was to investigate current skin care practice for radiotherapy patients across Europe and the United States of America (USA). The published literature was used as a guide to assess the appropriateness of current clinical guidelines.
Materials and Methods: A link to an online survey, using 'SurveyMonkey' was emailed to departments (N=737) across Europe and the USA. This survey was based on a questionnaire from the SCoR study, which was adapted, with permission, for a wider radiotherapy community. Each radiotherapy department manager was asked to select one radiation therapist per department to complete the survey. Data was collected and analysed using SPSS version 20.0 and Microsoft excel.
Results: One hundred and eighty one departments responded, giving a response rate of 25%. Results of the survey highlight disparities between clinical practice and research findings. Information provided to patients on how to manage their skin during radiotherapy is often inconsistent and outdated. A plethora of agents is used in a non-standardised manner.
Based on the results of this study, and current literature, an evidence-based skincare information leaflet for patients was devised.
Conclusions: A large variation was seen between departments with regard to current skincare practice. It highlights the need for further studies to be carried out in order to develop an evidence base for the skincare advice given to radiotherapy patients, and to eliminate non-standardised practice.

PD-0271
Dosimetric consequences due to shoulder position and how to increase the robustness for VMAT treatment planning
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Purpose/Objective: It is of importance to take the shoulder position into account when planning radiotherapy for head and neck cancer patients. The purpose of this study is: 1) to evaluate how interfractional variations of the shoulder position affect the dose distribution for RA compared to IMRT and 2) to develop an optimisation method for RA treatment planning in order to increase robustness to shoulder position variations.
Materials and Methods: One IMRT and two RA treatment plans (TPs) were made for a number of patients. The two RA TPs (RA anisotropic and RA isotropic) were prepared with and without taking the shoulders into account in the optimisation, respectively. The former was done with different methods e.g. using optimisation objectives on the delineated shoulders, by using avoiding sectors, or a combination of the two methods. The robustness of the different techniques and the different methods was investigated by simulating different shoulder positions in the treatment planning system. The body outline was edited to simulate when shoulders 'falls down' and 'moves up' and the original TPs were applied on the corresponding structure sets. Changes in dose distribution and dosimetric parameters e.g. CTV volume covered by 95% of the prescribed dose (V95(CTV)), dose max to ORs etc. was used to investigate the robustness of the TPs for the simulated shoulder positions. For relevant cases the body outlines from CBCT-scans acquired during the course of treatment, were transferred to the original CT set, in order to investigate how the shoulder position affect the dose in clinical situations.
Results: The figure illustrates simulated cases where the shoulders 'move up' 1 cm and 1.5 cm and how this affects the dose distribution for the IMRT, RA isotropic and RA anisotropic TPs, respectively. The IMRT plan was created with fixed beam angle geometry that takes the shoulders into account. As expected the IMRT was robust for interfractional variation of the shoulder position e.g. V95(CTV)=100%, for all simulated IMRT cases. The RA TPs were robust (e.g. V95(CTV)=100%) for small movements (1cm or less). If the shoulder